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IEEE KOLKATA SECTION



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Message from IEEE Kolkata Section Newsletter Committee Chair

Dear IEEE Kolkata Section Members and Readers,

I am honoured to have the opportunity to present to you the Third Quarter Newsletter of IEEE Kolkata Section. The goal of our newsletter is to provide valuable and relevant information about the activities and events conducted by IEEE Kolkata Section, its Subsections, Chapters, Affinity Groups, Student Branch Chapters etc. I believe that this newsletter can serve as an important tool for fostering communication and collaboration among our IEEE Members in Kolkata Section and beyond.

I am confident that this edition of the Newsletter will receive the same warmth and appreciation from our readers as the Second Quarter edition of the IEEE Kolkata Section Newsletter. I encourage you to reach out to me at ankita.telecom@faculty.iiests.ac.in, if you have any suggestions, feedback, or ideas for future newsletter content.

With warm regards,

Dr. Ankita Pramanik,

IEEE Kolkata Section Newsletter Committee Chair 2025



IEEE KOLKATA SECTION

1 | P a g e

Message from IEEE Kolkata Section, Chairperson 2025

Prof. Suparna Kar Chowdhury

Dear IEEE Kolkata Section Members, Greetings!!

It is my pleasure to present you the Quarter-3 Kolkata Section Newsletter for 2025. 3rd Quarter of the year ranging from July to September witnessed many noteworthy events. Major events organized by the Section are: a) CESC Milestone Commemorating Lecture, b) Sir J C Bose Milestone Commemorating Lecture and c) IEEE Kolkata Section Student Congress.

The Chapters and AGs also organized many events. All events were marked by large turnout of members.

The CESC Milestone Commemorative Lecture was held on 5th July, 2025 at Tollygunge Club. 35 persons attended the meeting. Mr Sandip Pal, Sr. Vice President (System Operation) delivered a talk on present scenario of CESC Network. Mr. S. K. Soonee Former & Founder CEO POSOCO, (Now Grid India) delivered the 'CESC Milestone Commemorative' lecture. He spoke on the interesting topics of "India's Power Market Developments: From Despatch to Derivatives."

The Sir J C Bose Milestone Commemorative Lecture was held on 28th August, 2025 at Eastern Metropolitan Club, with 47 persons attending the meeting. Dr. Sengupta Former director National Physical Laboratory and Honorary Distinguished Professor, Department of Space, ISRO delivered the prestigious 'Sir J C Bose Milestone Commemorative' lecture. He spoke on the interesting topics of 'Navigating the World: The Science Behind Satellite Navigation.'

IEEE Kolkata Section organized the 3rd IEEE Kolkata Section Student Congress on 29th Auigust 2025 at JIS University, Nilguange Road, Kolkata with speakers Dr. Amitava Sengupta, former director National Physical Laboratory and Guest of Honour Dr. Preeti Bajaj. The congress was attended by more than 100 student members. Chair Elect of India Council attended the congress. Dr. Amitava Sengupta delivered an entertaining keynote address on "India's Expedition to Antartica" and Dr. Preeti Bajaj gave an illuminating keynote address on "Transition from student to YP".

Like previous year Kolkata Section organised Robotics Competition. First round was organised online and the final round was organized during the Student Congress. Five teams from Neotia University, Institute of Engineering and Management Kolkata, NIT Silchar and St. Thomas College of Engineering & Technology, selected from the online competition took part in the competition. The team from Neotia University won the competition.

This year a competition amongst the SBs and SBCs, "IEEE Xcellence" was organised. The first round of this event was organised online on 10th August. The final round of presentation competition was also organized during the Student Congress. Five teams from Calcutta University SB, Jadavpur University SB, St. Thomas College of Engineering & Technology SB, MTT SBC of Heritage Institute of Technology and CS SBC of Institute of Engineering and Management Kolkata, selected from the online competition took part in the competition. The teams from IEM and Heritage won the competition jointly.

In the next quarter we plan to organise 'Sir C V Raman Milestone Commemorative Lecture'.

I thank all the members for their wholehearted support and cooperation and look forward to another interesting edition of newsletter in the fourth quarter. I wish to place a special thanks to the Section newsletter team for the efforts which went behind this edition. Your feedback will be of great help to us, do send us your comments to ankita.telecom@faculty.iiests.ac.in.

Sd/

Prof. Suparna Kar Chowdhury,

Chair, Kolkata Section





IEEE KOLKATA SECTION

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Section Events Report

CESC Milestone Commemorative Lecture

IEEE Kolkata Section organized the CESC Milestone Commemorative Lecture on 5th July 2025 at Tollygunge Club, Kolkata. The event started with Prof. Suparna Kar Chowdhury, Chairperson of IEEE Kolkata Section delivering the welcome address and felicitated the Chief Guest, Mr. S.K.Soonee, Former & Founder CEO POSOCO, (Now Grid India) and Mr Sandip Pal, Senior VP, Systems Operations, CESC Ltd, Kolkata was the guest of honour. In her address she dwelt on activities of the Kolkata Section. Mr Sandip Pal addressed the gathering on behalf of CESC ltd. and delivered a talk on present power scenario of CESC Network. Mr. S.K.Soonee delivered the prestigious 'CESC Milestone Commemorative' lecture. He spoke on the interesting topics of "India's Power Market Developments: From Despatch to Derivatives." Prof. Suparna Kar Chowdhury, Chairperson Kolkata Section presented mementos to the guest speaker and the session chair. In concluding session Dr. Tridibesh Nag proposed the vote of thanks to all the dignitaries and those present in the audience.



Speakers and participants at CESC Milestone Commemorative Lecture









Speakers at CESC Milestone Commemorative Lecture



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Sir J C Bose Milestone Commemorative Lecture

IEEE Kolkata Section organized the Sir J C Bose Milestone Commemorative Lecture on 28th Auigust 2025 at Eastern Metropolitan Club, Kolkata. The event started with Prof. Suparna Kar Chowdhury, Chairperson of IEEE Kolkata Section delivering the welcome address. She felicitated the Chief Guest, Dr. Amitava Sengupta, Former director National Physical Laboratory and Guest of Honour Dr. Preeti Bajaj, Chair Elect of India Council. In her address she dwelt on activities of the Kolkata Section. Dr. Sengupta delivered the prestigious 'Sir J C Bose Milestone Commemorative' lecture. Prof. Suparna Kar Chowdhury, Chairperson Kolkata Section presented mementos to the guest speaker. The event concluded with vote of thanks proposed by Dr. Tridibesh Nag.





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IEEE Kolkata Section Student Congress







Glimpses of the event

IEEE Kolkata Section organized the 3rd IEEE Kolkata Section Student Congress on 29th August 2025 at JIS University, Kolkata. The event started with Prof. Suparna Kar Chowdhury, Chairperson of IEEE Kolkata Section delivering the welcome address. She also felicitated the Chief Guest, Dr. Amitava Sengupta, Former director National Physical Laboratory and Guest of Honour Dr. Preeti Bajaj, Chair Elect of India Council. In her address she dwelt on activities of the Kolkata Section. After the inauguration, Dr. Preeti Bajaj gave an illuminating keynote address on "Transition from student to YP" addressing nearly 125 student participants.

After the keynote address final round of Kolkata Section Robotics Competition was organized. Five teams from Neotia University, Institute of Engineering and Management Kolkata, Shilchar NIT and St. Thomas College of Engineering & Technology selected from the online competition took part in the competition. The final round of presentation competition of the SBs and SBCs was also organized during the Student Congress. Five teams from Calcutta University SB, Jadavpur University SB, St. Thomas College of Engineering & Technology SB, MTT SBC of Heritage Institute of Technology and CS SBC of Institute of Engineering and Management Kolkata selected from the online competition took part in the competition.

In the afternoon session Dr. Amitava Sengupta delivered an entertaining keynote address on "India's Expedition to Antertica". In concluding session Prof. Bhaskar Gupta, VC JIS University and Chair Elect of IEEE Kolkata Section addressed the students. Dr. Tridibesh Nag, secretary IEEE Kolkata Section proposed the vote of thanks to all the dignitaries and those present in the audience.

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IEEE Women in Engineering (WIE) Kolkata Affinity Group

WIE Day Seminar on "Providing Safe Cyberspace for Women"



IEEE WIE Kolkata Section in association with the Department of Electronics and Telecommunication Engineering (ETCE), Jadavpur University, IEEE COMSOC Kolkata Chapter, IEEE CAS Kolkata Chapter, and IEEE COMSOC JU Student Branch organized WIE Day 2025 event as a seminar.

Ranjan Chakraborty, Sub-Inspector, Cybercrime Department, Kolkata Police, with over 15 years of experience in cybercrime investigation and cyber forensics, led an engaging session on the current landscape of cyber threats. He shared practical cases and real-world experiences from the Kolkata Cyber Crime Police Department and explained how cybercrimes are evolving with increasing digital exposure. He emphasized preventive cyber practices, legal responses, and the critical need for awareness, especially for women, who are often vulnerable to targeted online threats. His interactive discussion resonated well with the participants, offering actionable tips on personal cyber safety.

The session was well-received by students and faculty members, who actively engaged in the Q&A session and expressed appreciation for the insights provided. The event successfully raised significant awareness about cybersecurity practices and motivated participants to adopt safer online behaviors. A total of 17 participants including 8 IEEE members participated in the event.



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Pre Event Session at CIACON 2025

On July 17, 2025, the inauguration of the IEEE Women in Engineering (WIE) Student Branch Affinity Group at Dr. B. C. Roy Engineering College, Durgapur, was held with great enthusiasm, featuring a talk by Nandini Mukherjee, followed by a panel discussion on the theme "Research Ethics in the Age of AI." The session was started by Prof. Sheli Sinha Chaudhari, who emphasized the importance of student involvement in IEEE and how it helps shape socially responsible technologists. She highlighted the long-term value of IEEE membership and encouraged students to approach technology as a tool for human benefit.

Prof. Nandini Mukherjee presented a talk on "The Role of High-Performance Computing (HPC) in AI," tracing AI's evolution from Alan Turing's early ideas to today's large-scale models like GPT-4. She explained the need for high computational power to train modern AI systems and stressed the importance of ethical practices in AI research and development.

The panel discussion that followed brought thought-provoking perspectives on AI ethics, research integrity, and responsible use of AI tools. The discussion also highlighted global inequalities in AI access and emphasized collaboration between academia and industry. The event inspired students to engage in meaningful, ethical research practices. Panelists urged students to avoid plagiarism, understand the fundamentals, and use AI as a support—not a substitute—for original thinking. 130 people attended the event.





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ELEVATE 2025



IEEE IEM Women in Engineering (WIE) Affinity Group, in collaboration with the IEEE IEM CASS Student Branch Chapter and IEEE Women In Engineering Kolkata Section, successfully organized an Arduino Workshop as part of ELEVATE 2025, held from 18th to 20th July.

The workshop introduced participants to the fundamentals of Arduino microcontroller board, providing hands-on experience in hardware programming, sensor interfacing, and basic automation projects. It served as an excellent platform for students to enhance their technical skills and apply practical knowledge in embedded systems and circuit design. Prof. Ratna Chakraborty, Professor, ECE Department, IEM was the resource person for the event. A total of 50 participants, including 22 IEEE members attended the event.



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Poster Session at 2nd International Conference on Artificial Intelligence & Sustainable Computing (AISC 2025)

IEEE WIE Kolkata Affinity Group in collaboration with Department of Information Technology, B. P. Poddar Institute of Management & Technology, Kolkata and A. K. Choudhury School of Information Technology, University of Calcutta had organized a poster session under the aegis of 2nd International Conference on Artificial Intelligence & Sustainable Computing (AISC 2025) at Software Technology Parks of India, Bidhannagar, Kolkata on 25th July 2025. Dr. Ankita Pramanik, IIEST Shibpur past Chair IEEE WIE Kolkata and Prof. (Dr.) Amlan Chakrabarti, Director, A.K. Choudhury School of Information Technology, University of Calcutta, India were the judges of the poster session.





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SYTRON 2025

The Department of Electronics and Communication Engineering, IEM Kolkata in collaboration with IEEE IEM Student Branch along with all its Student Branch Chapters and IEEE Women In Engineering Kolkata Section hosted a 3-day technical extravaganza, Sytron 2025 from 29th to 31st August at the IEM Gurukul Building, Salt Lake, Kolkata, India. With over 400 registrations and more than 250 active participants, the 3-day technical extravaganza featured insightful talks from researchers and industrial experts, hands-on workshops, competitions, and fun-filled games, thus opening an avenue to network, collaborate, exchange knowledge and fostered team work and the spirit of competition.

After the inauguration ceremony, began a Poster Presentation Competition organized by the IEEE Women in Engineering IEM Student Branch Chapter where participants were given tracks based on the 17 Sustainable Development Goals (SDGs) of the United Nations. They had to design technical posters on their chosen track and demonstrate the same to a jury. The participants were scored on the posters and their presentation. A total of 100 participants, including 20 IEEE members attended the event.





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Hands-on Session on IoT for Diploma Students





Workshop in Progress

Participants at the Event

On September 11, 2025, the Electronics & Telecommunication Engineering Department of Jadavpur University hosted a "Hands-on IoT" workshop. This collaborative initiative, supported by the IEEE Women in Engineering (WIE) Affinity Group, was designed for students from Women's Polytechnic College, Chandannagar.

The workshop bridged the gap between theory and practice. Participants gained hands-on experience with Arduino and ESP32 microcontrollers, learned to interface with a DHT11 temperature and humidity sensor, and used the Blynk platform for real-time data visualization through the workshop. The event culminated in the successful construction of a functional weather station prototype. This practical approach effectively imparted technical skills in IoT development while fostering confidence and collaborative problem-solving abilities among the students. Thirty-five people participated in the event.



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Three-Day Workshop on Raspberry Pi



The Department of Electronics and Communication Engineering (ECE), Institute of Engineering & Management (IEM), Kolkata organized a three-day workshop on Raspberry Pi during September 16-19, 2025, in association with the IEEE IEM Circuits and Systems (CAS) Chapter, IEEE IEM Women in Engineering (WIE) Affinity Group, and the IEM ECE IEI Student Chapter. The workshop provided undergraduate students with comprehensive exposure to the fundamentals and applications of Raspberry Pi in embedded systems and real-time projects. The instructional modules covered the key areas of Installation and configuration of the Raspberry Pi operating system, Interfacing of Raspberry Pi with peripheral devices, Key hardware and software components, Application development and Implementation of a project using the Raspberry Pi Camera Module. The speakers for the event were Mr. Rahul Sharma, Co-Founder of Distronix Ltd., Prof. Samit Karmakar, Institute of Engineering & Management (IEM), Kolkata and Prof Soham Kanti Bishnu, Institute of Engineering & Management (IEM), Kolkata. A total of 60 participants including 15 IEEE members participated in the event.



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IEEE Communications Society (ComSoc) Kolkata Chapter

IEEE ComSoc - Signaling Techniques for Green Communications

On July 16, 2025, the Department of Electronics and Communication Engineering, in collaboration with the IEEE EDS Student Branch Chapter, Center of Excellence and IEEE COMSOC Kolkata Chapter, organized a distinguished lecture on Signaling Techniques for Green Communications at Heritage Institute of Technology, Kolkata. The event began with a warm welcome extended to the speaker, Prof. Ranjan K. Mallik, Fellow IEEE and Professor at IIT Delhi, by Dr. Mousiki Kar, Coordinator of the IEEE EDS Center of Excellence. This was followed by a welcome address delivered by Prof. Prabir Banerjee, Head of the Department of ECE, and the speaker was formally introduced by Principal Advisor Prof. Souvik Bhattacharya. A felicitation session was held before the commencement of the talk. Prof. Mallik, delivered an engaging and insightful lecture focusing on low-complexity, low-power receiver designs for energy-efficient communication systems, particularly in Rayleigh fading environments using noncoherent and partially noncoherent techniques with amplitude-shift keying. The talk included analytical models, decision rules, and performance comparisons of various receiver architectures, emphasizing their relevance to green communications. The session was attended by an enthusiastic audience of 47 participants, including faculty members, students, and staff. The event concluded with an engaging interaction, enriching the attendees' understanding of sustainable approaches in wireless communication.



Distinguished guests at the event



Prof. Mallik delivers his lecture



Distinguished guests and participants



Lecture in progress



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Digital Camera Signal Processing — History, Recent Advances, Challenges, And Opportunities



IEEE Communications Society (ComSoc) Kolkata Chapter in association with Australian Capital Territory Joint Chapter, SP01/COM19 (IEEE Signal Processing Society / Communications Society) organized a talk on "Digital Camera Signal Processing — History, Recent Advances, Challenges, and Opportunities" in hybrid event at Birch Building, 35 Science Rd, Canberra, ACT 2601, Australia on 20 August 2025. The talk was delivered by Dr. Farhan Baqai, Senior Research Manager, Apple Inc. Dr. Baqai is an expert in digital camera image processing, machine learning, and computational photography. In his talk, Dr. Baqai spoke on the early development of digital imaging pipelines, including sensor limitations, color filter arrays, demosaicing, denoising, and early compression methods. He then moved on to discuss recent advances like integration of machine learning and AIdriven ISP (Image Signal Processing) pipelines, computational photography (e.g., HDR, multi-frame fusion, super-resolution), and smartphone-driven innovations. He also spoke on the challenges, namely balancing power efficiency, real-time processing, hardware limitations, noise handling in low light, and ethical issues (e.g., image authenticity in an AI era). He concluded his talk by highlighting future directions in neural ISPs, 3D/AR imaging, multi-modal sensing (LiDAR + RGB), privacy-preserving imaging, and cross-disciplinary applications.

Workshop & Training Series on Data Driven Manufacturing (IIOT 4.0)

IEEE Communications Society (ComSoc) Kolkata Chapter in association with IEEE TEMS Kolkata Chapter, supported by University of Engineering & Management (UEM) and with Rockwell Automation, PHOENIX CONTACT (I) Pvt. Ltd. and K2N Academy as training partners organized a 7-days workshop and training on Data Driven Manufacturing (IIOT 4.0). The forst day of the event was held on 30-Aug-2025 in In-Person mode. The events held on 6, 13 and 20 September 2025 were held in online mode. The rest of the talks will be held in October 2025. The key highlights of the sessions are Industrial Internet of Things (IIoT 4.0) concepts, key data layers in smart manufacturing, Hands-on demonstrations with realworld case studies and Industry-led training powered by K2N Academy, Rockwell Automation, and Phoenix Contact.



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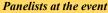
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NASSCOM Session on "Innovating for Smart, Sustainable, and Scalable Manufacturing"

IEEE ComSoc Kolkata Chapter participated in NASSCOM session on "Innovating for Smart, Sustainable, and Scalable Manufacturing" on 4th September 2025 at Altair Boutique Hotel, Kolkata. The session brought together industry leaders, researchers, and policymakers to discuss the transformation of manufacturing through Industry 4.0, digital technologies, and sustainable practices. Key themes included automation, AI, IoT, and robotics in building adaptive, data-driven ecosystems. Dr. Pallab Ganguly of IEEE ComSoc delivered insights on Smart Manufacturing & Industry 4.0 – Interconnected, resilient factories, Industrial IoT – Sensors, connectivity, predictive analytics, Automation & Robotics – Human-centric cobots, safer operations, AI/ML – Digital twins, real-time analytics, cost optimization. He also spoke on Future Outlook on Convergence of AI, IoT, and robotics for sustainable ecosystems.







Discussion in progress

Panel Discussion



IEEE ComSoc Kolkata Chapter in association with VARINDIA had organized a panel discussion featuring distinguished leaders from the IT and industry ecosystem during the 14th Eastern India Information Technology Fair (EIITF) 2025 on 5th September 2025 at Hotel The Park, Kolkata. The theme of the event was "Connecting the Physical & Digital World". Dr. Deepak Kumar Sahu, Chief Editor, VARINDIA was the moderator of the event. The panelists were Dr. Debabrata Nayak - Director, PwC India, Mr. Prakash Tripathi - Sr. V. P. - IT, Shyam Steel Industries Ltd., Dr. Pallab Ganguly -Chairman, IEEE ComSoc Kolkata and All. CISO, CESC Ltd., Mr. Abhijit Chatterjee - Sr. Director - IT & Corporate Communications & CISO, TCG Lifesciences Pvt. Ltd. and Mr. Rishikesh Kumar Singh - V. P. - IT & Digital, Grasim Industries Ltd. (Aditya Birla Group). The discussion revolved around emerging technologies that are reshaping industries. In the discussion, the experts shared perspectives on cybersecurity, IT infrastructure, and digital transformation.

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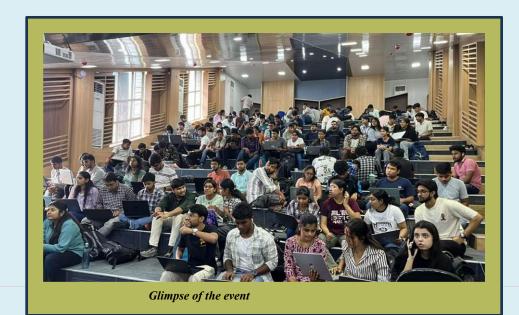
The Future of Work and the Work of the Future



The Department of Electronics and Communication Engineering (ECE), Narula Institute of Technology, under the banner of the IETE Student Forum (ISF), organized a distinguished guest lecture on "The Future of Work and The Work of the Future." The event was held on 10th September 2025 at NIT and was conducted in association with IEEE Communications Society (ComSoc), Kolkata Chapter and IEEE Technology and Engineering Management Society (TEMS), Kolkata Chapter. The session was delivered by Dr. Jyoti Sekhar Banerjee, Secretary of the IETE Kolkata Centre. With his extensive knowledge and experience, Dr. Banerjee provided valuable insights into the evolving dynamics of the workplace and the critical role of technology, innovation, and adaptability in shaping the future of employment.

Internal Hackathon for Smart India Hackathon (SIH) 2025, JIS University, Agarpara Campus

IEEE Communications Society (ComSoc), Kolkata Chapter presented Internal Hackathon for Smart India Hackathon (SIH) 2025, JIS University, Agarpara Campus. The event was held during 15th – 16th September 2025 at JIS University, Agarpara Campus. Participants were Undergraduate and postgraduate students across disciplines.





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Virtual Distinguished Lecture (VDL)

The IEEE Communications Society (ComSoc) Kolkata Chapter, in collaboration with IEEE ComSoc NIT Silchar Student Branch Chapter, organized a Virtual Distinguished Lecture (VDL) on September 19, 2025, at 3:00 PM IST. The topic of the lecture was, "Framing 6G and Future Networks (FN) in terms of Key Enabling Technologies (KET), Technology Trends (TT), and Key Performance Indicators (KPI)". Prof. Jacopo Iannacci, Professor, University of Bologna, Italy, Researcher, Fondazione Bruno Kessler (FBK), Trento, Italy, Senior Member, IEEE (since 2021) and IEEE ComSoc Distinguished Lecturer (2025–2026) was the speaker of the event.



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IEEE Power & Energy Society (PES) Kolkata Chapter

Technical lecture

IEEE Power & Energy Society (PES) Kolkata Chapter organized a technical lecture meeting on "Communication aspects in Advanced Metering Infrastructure in Smart Grid" on 25th July, 2025 at Seminar Hall, of Electrical Engineering Department, Jadavpur University. Prof. Jitendra Nath Bera was the invited speaker for the event. His lecture was followed by an award ceremony in which Prof. Jitendra Nath Bera was awarded with Chapter Outstanding Engineer Award (OEA) 2024 in recognition of his contributions in growth and sustenance of the PES Kolkata Chapter. A total of 30 students including 10 IEEE members attended the Icebreaking Session.



Lecture session in progress



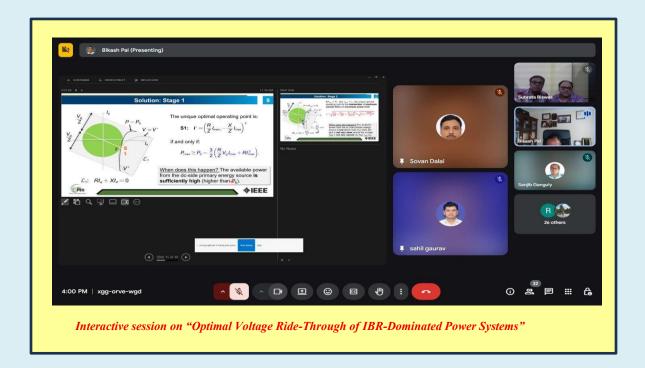
Prof. Jitendra Nath Bera receiving the plaque of OEA



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Technical lecture



IEEE PES Kolkata Chapter had organized an online technical lecture meeting on "Optimal Voltage Ride-Through of IBR-Dominated Power Systems" on 21st August, 2025 with Dr. Bikash Pal, Professor of Power Systems at Imperial College London as the speaker. Dr. Bikash Pal's deep insights and decades of experience in the power sector were immensely inspiring. A total of 32 people including 12 IEEE members had attended the event.



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IEEE Geoscience and Remote Sensing Society (GRSS) Kolkata Chapter

International Workshop on Deep Learning and Artificial Intelligence (DLAI9)

A five-day International Workshop on Deep Learning and Artificial Intelligence (DLAI9) was organized by IEEE Geoscience and Remote Sensing Society (GRSS) Kolkata Chapter. It was conducted from 5th to 9th September 2025 at Bhubaneswar, Odisha. It began with an inaugural ceremony graced by Prof. Ashish Ghosh, Director of IIIT Bhubaneswar, and Prof. B. Yegnanarayana, Distinguished Professor at IIT Hyderabad, who delivered inspiring keynote addresses. The workshop featured nine technical sessions covering diverse topics, from the fundamentals of AI to advanced applications such as AI in the Indian legal system, neuroscience, and spiking neural networks. The opening lecture by Prof. B. Yegnanarayana explored the similarities and differences between human and machine learning, setting a stimulating tone for the event. Eminent speakers included Dr. Lipika Dey (Ashoka University), Dr. Susmita Ghosh (Jadavpur University), Dr. Ashutosh Modi (IIT Kanpur), Dr. Niloy Ganguly and Dr. Sudeshna Sarkar (IIT Kharagpur), Dr. Ashish Ghosh (IIIT Bhubaneswar), Dr. Manish Shrivastava (IIIT Hyderabad), and Dr. Laxmidhar Behera (IIT Mandi). An online lecture by Dr. Nikola Kasabov from Auckland University of Technology, New Zealand, added a global perspective. Additionally, two hands-on sessions by Dr. Manoj Kumar Panda, Dr. Priyadarshan Parida (GIET University), and Dr. Subhadip Boral (SOA University) were highly appreciated for their practical insights. With 40 participants, DLAI9 provided a rich platform for learning, discussion, and knowledge exchange in Deep Learning and Artificial Intelligence.

GeoHack 2025

The Geospatial Hackathon (GeoHack2025), organized by IEEE Geoscience and Remote Sensing Society (GRSS) Kolkata Chapter commenced on 20th August 2025 in online mode and concluded on 6th September 2025 with a 12-hour offline final round at IIIT Bhubaneswar, featuring the top 15 finalist teams. The hackathon challenged participants to develop innovative solutions to real-world problems such as real-time disaster detection and response, crop health monitoring and yield forecasting, and air quality prediction. A total of 102 students from across India participated, demonstrating outstanding creativity and technical acumen. The event promoted teamwork, leadership, and innovation under time constraints, inspiring impactful and practical geospatial solutions.





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Panel Discussion on "Artificial Intelligence: A boon or a bane?"

A panel discussion on "Artificial Intelligence: A Boon or a Bane?" was held on 9th September 2025 at IIIT Bhubaneswar, featuring Prof. Laxmidhar Behera (Director, IIT Mandi), Prof. Ashish Ghosh (Director, IIIT Bhubaneswar), and Dr. Manish Shrivastava (IIIT Hyderabad), moderated by Dr. Sambit Mohapatra (IIIT Bhubaneswar). The discussion explored the societal, economic, psychological, and existential impacts of AI, along with its future directions. An interactive Q&A session encouraged active participation. With 60 attendees, the event offered valuable insights and served as an excellent platform for researchers and professionals to understand the broader implications of Artificial Intelligence.

Progress Review Meeting of InGARSS 2025

The core organizing committee meeting for InGARSS 2025, held on 23rd September 2025 at IIIT Bhubaneswar, focused on reviewing key updates and progress across committees. The Program Chair reported the receipt of 484 paper submissions, noting that the review process was ongoing and deadlines for author notification and registrations were accordingly revised. The Finance Chair confirmed Gold sponsorship from Corteva Agriscience and shared updates on sponsorship requests submitted to ISRO, DRDO, and ICSSR. The Professional Conference Organizer (PCO) was finalized as Next Altitude Management Services Pvt. Ltd., Bhubaneswar. The Local Organizing Committee presented updates on accommodation, venue arrangements, transportation, and hospitality, ensuring smooth execution of the upcoming event.



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IEEE Antenna Propagation Society (APS) Kolkata Chapter

- 1. INDO-US VAJRA General Public Lecture on "Michael Faraday: the Genius Experimentalist" jointly organized (offline) by IEEE Kolkata Section AP Society Joint Chapter-Silchar, IEEE MTTS Student Branch Chapter, and ECE Dept. National Institute of Technology Silchar (India) on 1st August 2025. Prof. Sembiam R. Rengarajan, California State University Northridge, USA was the Speaker for the event.
- 2. Indo-US VAJRA General Public Lecture on "The Wonderful World of Antennas" jointly organized (offline) by IEEE Kolkata Section AP Society Joint Chapter-Silchar, IEEE MTTS Student Branch Chapter, and ECE Dept. National Institute of Technology Silchar on 8 August 2025. Prof. Sembiam R. Rengarajan, California State University Northridge, USA was the Speaker for the event.
- 3. INDO-US VAJRA General Public Lecture on "Artificial Neural Network-Based Modeling with Emerging Applications" jointly organized (offline) by IEEE Kolkata Section AP Society Joint Chapter-Silchar, IEEE MTTS Student Branch Chapter, and ECE Dept., National Institute of Technology Silchar on 11 August 2025. Prof. Sembiam R. Rengarajan, California State University Northridge, USA was the Speaker for the event.



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IEEE CAS Kolkata Section & IEM IEEE CAS SBC

Home Automation - Summer Workshop

A Symposium and Hands-On on "Home Automation - Summer Workshop" was held on July 03, 2025 at ETCE Department, Jadavpur University. The event was organized by Department of ETCE Jadavpur University in collaboration with IEEE CAS Kolkata Section. Dr. Indrajit Banerjee opened the first session with a keynote on the Internet of Things (IoT), discussing its role in smart cities, autonomous vehicles, and its integration with AI and ML to create intelligent systems. Dr. Sheli Sinha Chaudhari then elaborated on various applications of IoT. The second half featured a talk by Dr. Sayan Chatterjee on impact of IoT across industries, encouraging student innovation. CBSIOT, the sponsor, shared insights into their industrial IoT contributions. A hands-on workshop followed, led by Anurag Kar, Tech Lead of IOTA, who guided students through building a home automation circuit using ESP32 and sensors, explaining the code and logic. IOTA tech members assisted participants, ensuring a smooth experience. The event concluded with certificate distribution and feedback collection, leaving students inspired and excited for future IOTA activities. A total of 61 participants, including 32 IEEE members took part in the event.





23 | P a g e

WIE Day Seminar on "Providing Safe Cyberspace for Women"

IEEE WIE Kolkata Section in association with the Department of Electronics and Telecommunication Engineering (ETCE), Jadavpur University, IEEE COMSOC Kolkata Chapter, IEEE CAS Kolkata Chapter, and IEEE COMSOC JU Student Branch organized WIE Day 2025 event as a seminar. Ranjan Chakraborty, Sub-Inspector, Cybercrime Department, Kolkata Police, with over 15 years of experience in cybercrime investigation and cyber forensics, led an engaging session on the current landscape of cyber threats.

ELEVATE 2025

IEEE IEM Women in Engineering (WIE) Affinity Group, in collaboration with the IEEE IEM CASS Student Branch Chapter and IEEE Women In Engineering Kolkata Section successfully organized an Arduino Workshop as part of ELEVATE 2025, held from 18th to 20th July. The workshop introduced participants to the fundamentals of Arduino microcontroller board, providing hands-on experience in hardware programming, sensor interfacing, and basic automation projects.

ALUMNI TALK 2025 was organized by the IEEE CAS Student Branch Chapter on 4th August, 2025 at IEM Gurukul Campus with Uddipan Agasti, 2024 pass-out batch, as speaker. Currently pursuing his M.Tech at IIT Kharagpur in Functional Materials and Devices, Uddipan has received a prestigious offer from IMEC, Belgium, to undertake his master thesis. During the session, he shared his journey from undergraduate studies to securing an international research opportunity, emphasizing the importance of higher studies in shaping a strong technical foundation and global perspective. He encouraged students to explore interdisciplinary fields, aim for premier institutions, and remain committed to continuous learning. Uddipan also provided practical guidance on preparing for competitive exams, building research profiles, and applying for international programs. His talk served as a motivating experience for aspiring engineers, instilling confidence and ambition among attendees to pursue advanced studies and research careers. A total of 150 participants with 59 IEEE members took part in the event.

ALUMNI TALK 2025





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Industry Interaction at CoE in IC Design

On 5th August 2025, the Centre of Excellence (COE) in IC Design, Gurukul Campus, hosted Mr. Biswadeep Chatterjee, Associate Vice President at HCL Technologies for Industry Interaction. The event was organized by IEM IEEE CAS SBC and COE (Centre of Excellence) of IC Design) of IEM. With over 29 years of rich industrial experience across Intel, Qualcomm, and HCL in the domains of VLSI, CAD, and Physical Design, his presence was an invaluable learning opportunity for both faculty and researchers. Mr. Chatterjee during his interaction with the VLSI faculty team, elaborated on the significance of testing, verification, and emulation processes in the VLSI design flow. He emphasized the importance of adopting advanced methodologies to ensure design reliability and performance in modern semiconductor design projects. One of the key highlights of the session was his discussion on the integration of Artificial Intelligence (AI) in automating test case generation and enhancing the verification processes in VLSI. The visit concluded with an open discussion and knowledge exchange, leaving the faculty inspired to explore innovative approaches in their teaching and research. A total of 30 participants, including 14 IEEE members took part in the event.





25 | P a g e

IEEE-CAS Lecture on Design and Fabrication of Advanced Functional Nanomaterial-Based Devices for Sensing and Energy Storage Applications

Department of Instrumentation & Electronics Engineering of Jadavpur University in collaboration with IEEE CAS Kolkata Section had organized "IEEE-CAS lecture on Design and Fabrication of Advanced Functional Nanomaterial-Based Devices for Sensing and Energy Storage Applications on 29.08.2025 at UGC-MMTTC, Jadavpur University Salt Lake Campus. It was delivered by Dr. Rinky Sha. She focused on the design and fabrication of advanced nanomaterial-based devices for sensing and energy storage applications. Dr. Sha elaborated on the synthesis of 2D nanomaterials, flexible bioelectronics, electrochemical and gas sensors, energy storage/conversion devices, and the application of AI/ML in sensing technologies. She also shared insights from her research experience and discussed the challenges and opportunities in the field of nanoelectronics. A total of 57 participants registered for the program, including faculty members, PhD scholars, PG and UG students. Out of these, 35 participants attended, comprising students and research scholars from both state-funded and private institutions.





Glimpses of the Event



IEEE KOLKATA SECTION

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Yantra Vidya

IEM IEEE CAS SBC had organized "Yantra Vidya" on August 30, 2025 at IEM Gurukul Building. Teams of two to four were challenged to create and present creative, useful, and economical working models as part of the "Yantra Vidya" model-making competition. The event required all projects to be put together on-site. This allowed for a closer look at the models and a direct observation of the building process. In addition to their final working model, teams were evaluated on their ability to effectively respond to judges' questions during a 5- to 10-minute presentation period, a 100-word abstract, and a visually appealing PowerPoint presentation. 12 groups had participated in this competition.



Participants at the event

Alumni Talk 2025



Glimpse of the event

On August 31st, 2025, the IEEE CASS Student Branch Kolkata successfully hosted a Raspberry Pi workshop as part of SYTRON 2025 at IEM Gurukul Campus. The hour-long session, from 12 PM to 1 PM, provided a hands-on introduction to the versatile microcomputer. Attendees delved into its basic architecture, setup, and potential applications, gaining foundational programming skills. The interactive workshop fostered a practical learning environment, empowering participants with the knowledge to embark on their own electronics and computing projects, sparking innovation and curiosity among all who attended. 10 IEEE members and 60 Non-IEEE members took part in the event.



27 | P a g e

UAV Workshop





Demonstration at the UAV Workshop

Participants at the UAV Workshop

On August 31st, 2025, the IEEE CASS Student Branch Kolkata hosted an insightful UAV workshop at IEM Gurukul Campus as part of SYTRON 2025. The session, held from 12 PM to 1 PM, provided a comprehensive introduction to unmanned aerial vehicle technology. Attendees delved into the core principles of drone aerodynamics, flight control systems, and key components. The workshop focused on the design and operational theory behind UAVs, offering a solid foundational knowledge. It was an engaging event that successfully sparked curiosity and equipped students with a deeper understanding of aerial robotics.10 IEEE members and 50 Non-IEEE members took part in the event.



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VLSI Workshop

On August 31st, 2025, the IEEE CASS Student Branch Kolkata hosted an insightful UAV workshop at IEM Gurukul Campus as part of SYTRON 2025. The session, held from 12 PM to 1 PM, provided a comprehensive introduction to unmanned aerial vehicle technology. Attendees delved into the core principles of drone aerodynamics, flight control systems, and key components. The workshop focused on the design and operational theory behind UAVs, offering a solid foundational knowledge. It was an engaging event that successfully sparked curiosity and equipped students with a deeper understanding of aerial robotics.10 IEEE members and 50 Non-IEEE members took part in the event.



Glimpse of the event



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IEEE Kolkata Student Branch Chapters

IEEE IES IEM SBC

AARAMBH 1.0 – IEEE Awareness Program

The Department of Electrical Engineering of the Institute of Engineering and Management (IEM), Kolkata successfully organized AARAMBH 1.0 – IEEE Awareness Program on 16th July 2025 at the CII Auditorium, Management Building, IEM in hybrid mode. Jointly conducted by IEEE-IES SBC and IEEE-IAS SBC, the event introduced students from various disciplines to the world of IEEE, emphasizing its global network, research access, skill-building platforms, and career opportunities. The session proved to be an enriching experience, offering valuable insights and exciting goodies to all participants.





Glimpses of the event



IEEE KOLKATA SECTION

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Distinguished Lecture





Glimpses of the event

A Distinguished Lecture on "EV Load Dispatch Modelling" was successfully conducted on 16th July 2025 at the CII Auditorium, IEM Management Campus, Kolkata, in hybrid mode. The session was delivered by Prof. Atif Iqbal, IEEE Fellow and renowned faculty member from Qatar University. Technically sponsored by IEEE-IAS and co-sponsored by the IEEE IES SBC of IEM and IEEE Joint CSS-IMS Kolkata Chapter, the lecture offered deep insights into electric vehicle integration and energy dispatch strategies. The event was well-attended by students, researchers, faculty, and industry professionals.

IEEE Student Branch Chapters' Installation, Technical Talk & Award Ceremony









Glimpses of the event

The Department of Electrical and Electronic Engineering (EEE) and Department of Electrical Engineering (EE), in association with IEEE SSCS, IAS, and IES, IEM Kolkata, proudly organized the IEEE Student Branch Chapters' Installation, Technical Talk, and Award Ceremony on 5th August 2025 at the CII Auditorium, IEM Management House. This engaging event provided an excellent platform for learning, networking, and celebrating achievements within the IEEE community.

KOLKATA SECTION

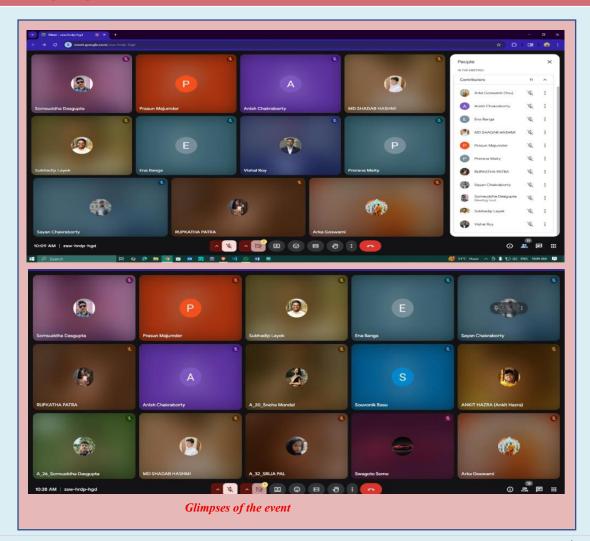
NEWSLETTER

IEEE KOLKATA SECTION

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BRAINS, BOTS & BREAKTHROUGHS 2025

Institute of Electrical and Electronics Engineers – Industry Applications Society (IEEE IAS) & Industrial Electronics Society (IEEE IES), Institute of Engineering & Management (IEM) Kolkata organised BRAINS, BOTS & BREAKTHROUGHS 2025, an exciting 48-hour AI App-Making Warzone in online mode on 9th August 2025. The prize pool was INR 20,000. The event brought together bright minds from various institutions to innovate, code, and compete in a dynamic online format. Participants worked on impactful themes such as Electric Vehicles, Renewable Energy, Robotics, Cybersecurity, and sector-specific innovations. The competition encouraged collaboration, creative problem-solving, and application of AI-driven solutions to real-world challenges. Students worked intensively over two days to create functional AI applications, guided by mentors. Submissions included APK files and GitHub repositories, which were evaluated based on innovation, functionality, and real-world impact. The event encouraged participants to apply AI in practical scenarios, fostering creativity, problem-solving skills, and teamwork. Total Number of participants in the event were 27.





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IEM IEEE Women In Engineering SBC Kolkata Section

ELEVATE 2025



IEEE IEM Women in Engineering (WIE) Affinity Group, in collaboration with the IEEE IEM CASS Student Branch Chapter, and IEEE Women In Engineering Kolkata Section successfully organized an Arduino Workshop as part of ELEVATE 2025, held from 18th to 20th July.

The workshop introduced participants to the fundamentals of Arduino microcontroller board, providing hands-on experience in hardware programming, sensor interfacing, and basic automation projects. It served as an excellent platform for students to enhance their technical skills and apply practical knowledge in embedded systems and circuit design. Prof. Ratna Chakraborty, Professor, ECE Department, IEM was the resource person for the event. A total of 50 participants, including 22 IEEE members attended the event.



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SYTRON 2025

The Department of Electronics and Communication Engineering, IEM Kolkata in collaboration with IEEE IEM Student Branch along with all its Student Branch Chapters and IEEE Women In Engineering Kolkata Section hosted a 3-day technical extravaganza, Sytron 2025 from 29th to 31st August at the IEM Gurukul Building, Salt Lake, Kolkata, India. With over 400 registrations and more than 250 active participants, the 3-day technical extravaganza featured insightful talks from researchers and industrial experts, hands-on workshops, competitions, and fun-filled games, thus opening an avenue to network, collaborate, exchange knowledge and fostered team work and the spirit of competition.

After the inauguration ceremony, began a Poster Presentation Competition organized by the IEEE Women in Engineering IEM Student Branch Chapter where participants were given tracks based on the 17 Sustainable Development Goals (SDGs) of the United Nations. They had to design technical posters on their chosen track and demonstrate the same to a jury. The participants were scored on the posters and their presentation. A total of 100 participants, including 20 IEEE members attended the event.





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Three-Day Workshop on Raspberry Pi



The Department of Electronics and Communication Engineering (ECE), Institute of Engineering & Management (IEM), Kolkata organized a three-day workshop on Raspberry Pi during September 16-19, 2025, in association with the IEEE IEM Circuits and Systems (CAS) Chapter, IEEE IEM Women in Engineering (WIE) Affinity Group, and the IEM ECE IEI Student Chapter. The workshop provided undergraduate students with comprehensive exposure to the fundamentals and applications of Raspberry Pi in embedded systems and real-time projects. The instructional modules covered the key areas of Installation and configuration of the Raspberry Pi operating system, Interfacing of Raspberry Pi with peripheral devices, Key hardware and software components, Application development and Implementation of a project using the Raspberry Pi Camera Module. The speakers for the event were Mr. Rahul Sharma, Co-Founder of Distronix Ltd., Prof. Samit Karmakar, Institute of Engineering & Management (IEM), Kolkata and Prof Soham Kanti Bishnu, Institute of Engineering & Management (IEM), Kolkata. A total of 60 participants including 15 IEEE members participated in the event.



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IEEE GRSS UEMK SBC Kolkata Section

GEOTRONIX 1.0 – Quiz Competition

On 25th July 2025, the IEEE GRSS UEMK Student Branch Chapter, in collaboration with the Department of Electronics and Communication Engineering (ECE), UEM Kolkata, organized GEOTRONIX 1.0, an electrifying quiz competition, as a part of the 9 International Conference on OPTO-ELECTRONICS and APPLIED OPTICS. The event witnessed the enthusiastic participation of more than 12 teams. The event was conducted under the guidance of Prof. Dr. Abir Chattopadhyay (Research Advisor, IEEE GRSS UEMK SBC) and Dr. Subhajit Das (Faculty Advisor, IEEE GRSS UEMK SBC). GEOTRONIX 1.0 was supported wholeheartedly by our respected faculty members.

GEOTRONIX 1.0 served as a vibrant platform promoting knowledge, collaboration, and innovation among UEM Kolkata students. Engaging rounds, along with audience and faculty involvement, fostered inclusiveness and enthusiasm. Winners received trophies, medals, and certificates, while all participants were recognized for their efforts.







Glimpses of the event



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GENOVATE 2025 – An Innovative Project Competition



Glimpses of the event

The Department of ECE and CSE (IoT), in collaboration with the PhD Cell and the IEEE GRSS Student Chapter of UEM Kolkata, organized GENOVATE 2025, an innovative project competition, on 29th August 2025 at the University of Engineering and Management, Kolkata. The event was conducted under the guidance of Prof. Dr. Abir Chattopadhyay (Research Advisor, IEEE GRSS UEMK SBC) and Dr. Subhajit Das (Faculty Advisor of IEEE GRSS UEMK SBC), with the support and encouragement of faculty members of ECE and CSE (IoT) departments. The competition was evaluated by Dr. Soumyak Chandra. The participants were assessed based on their project quality, problem-solving approach, clarity of presentation, working model, and delivery.

The event was conducted as follows: 21st Aug (Day 1): Poster frame collection, 22nd Aug (Day 2): First progress update submission, 23rd Aug (Day 3): Initial review and point collection, 24th Aug (Day 4): Second update and termination round, 25th Aug (Day 5): Progress review and evaluation, 26th Aug (Day 6): Soft copy poster submission & third progress update, 27th Aug (Day 7): Video submission and hard copy poster submission, 28th Aug (Day 8): Final review and points awarded and 29th Aug (Day 9): Grand Finale – Demo Day with poster presentations, working models, and speeches.

GENOVATE 2025 turned out to be a resounding success, inspiring students to think beyond textbooks and apply their knowledge to real-world challenges.



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UEMCOS 2025 Drone Workshop





Glimpses of the event

The IEEE GRSS UEMK Student Branch Chapter successfully organized the UEMCOS 2025 Drone Workshop on 13th September 2025 at the University of Engineering and Management, Kolkata, under the guidance of Prof. Dr. Abir Chattopadhyay and Dr. Subhajit Das. The event featured insightful sessions by Riddhiraj Chanda, Suchismita Chatterjee, Ritam Das, Monodip Roy, and Jeet Naskar, covering UAV (Unmanned Aerial Vehicle) technology, DGCA (Directorate General of Civil Aviation) regulations, and industry applications.

A hands-on training session allowed participants to experience real-time drone operations and flight demonstrations, fostering collaboration and technical learning. With over 30 students participating, the workshop successfully enhanced practical knowledge and inspired innovative thinking in areas like remote sensing, geoscience, and disaster management.



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IEEE Robotics & Automation Student Branch Chapter, IEEE Silchar Subsection

IEEE RAS SBC Orientation Drive







Glimpses of the event

The IEEE Robotics & Automation Student Branch Chapter of NIT Silchar hosted its annual Orientation Drive on September 14, 2025. The event was aimed at introducing new members to the vision, mission, and activities of the RAS chapter. The session was conducted by the student committee members and outlined the benefits of being an IEEE and RAS member, upcoming projects, and networking opportunities. The drive was a success, with 50 students in attendance.



IEEE KOLKATA SECTION

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Workshop on CAD Design







Glimpses of the event

An interactive workshop on Computer-Aided Design (CAD) was organized by the IEEE Robotics & Automation Student Branch Chapter on July 24, 2025. The workshop was conducted by Amandip Dutta, who guided the 40 participants through the essentials of CAD, from basic sketching to 3D modeling. The event provided a valuable learning experience for students, equipping them with skills crucial for robotics and engineering design.

A COMPREHENSIVE COMPILATION OF VARIOUS ACTIVITIES AND EVENTS OF IEEE KOLKATA SECTION, ITS SUBSECTIONS, CHAPTERS, AFFINITY GROUPS, STUDENT BRANCH CHAPTERS, ETC. HELD DURING JULY - SEPTEMBER 2025

OCTOBER 2025



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